CONCLUSIONS

PRP represents a new way to treat many sports and other injuries, through its ablilty to accelerate tissue healing and regeneration.

RESEARCH ON PRP

A recent review on PRP in an international medical journal has concluded that the enhancement of bone and soft tissue healing by PRP at the site of tissue injury or surgery is supported by basic science and clinical studies. (Mehta S, Watson JT : "Platelet Rich Concentrate: Basic Science and Clinical Applications" J Orthop Trauma. 2008 Jul;22(6):432-8)

Another review published in the British Journal of Sports Medicine concluded "The use of PRP promises to become a powerful therapeutic modality for use in muscle, tendon and ligament injury in the future..." (Creaney L & B Hamilton, Br. Journal Spt Med, 2008; 42;:314-320)

Some other recent research PRP has shown:

Improved tendon repair. *(Murray et al, J Orthop Res, 2007, and (Virchenko & Aspenberg, Acta Orthop 2006, De Mos et al, Am J Sports Med, 2008)*

Has potential to reduce inflammation. *(El-Shakawy et al, J Periodol, 2006)*

Has beneficial effects on cartilage regeneration. *(Akeda et al, Spine 2006, and Schnabel LV et al, J Orthop Res 2007)*

Effective in Osteoarthritis *(Wehling P et al, Biodrugs 2007)*

Effective in Tenis elbow – *Mirsha, AAOS, 2006, Peerblooms, Am J Sports Med 201*

Shows promise as a conservative method of intervention for CMP and early OA. *(P. Goh, Biobridge Conference, 2009)*

A full assesment by our specialists is recommended before any treatment.

For inquiries or appointments, please contact

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Sports Medicine International is a licensed Medical Clinic offering solutions in Sports and Exercise Medicine, including PRP treatments for sports injuries.

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Platelet Rich Plasma (PRP) Treatment for Sports Injuries

Sports Medicine International
a subsidiary of SCAH

PRP, or Platelet Rich Plasma

is a novel treatment which has been used for a variety of sports injuries and degenerative conditions.

In this procedure, a patient's own blood is used to obtain a platelet concentrate which is injected directly into the site of injury to assist in healing.

PLATELETS AND GROWTH FACTORS

Platelets are known to actively secrete several growth factors which initiate all wound healing. These growth factors include Platelet-Derived Growth Factors (PDGF's) and Transforming Growth Factors (TGF's).

The effects of these factors include attracting stem cells to the injured area, stimulating DNA and cell synthesis and promoting many activities associated with regeneration and tissue healing. Certain anti-inflammatory effects have also been found.

Platelets are central to the body's normal healing processes, and injecting a concentrate of platelets to an injured area can be seen as a way of accelerating what the body would normally be doing in order to heal an injury.

USES OF PRP IN SPORTS MEDICINE

The concept of PRP has opened up a wide variety of uses in sports, including:

- Muscle Tears or Strains
- Tendon Tears or strains
- Tendon inflammation or degeneration, including tennis elbow and Achilles tendonitis.
- Ligament Tears
- Cartilage "Wear and Tear" or Osteoarthritis

For most conditions between 1 to 3 injections may be used.

While the potential use of PRP may be wide, it is not applicable in all sports-related injuries or pain, and it is important to discuss with your practitioner the appropriateness of its use in any situation.

If you are a high-level athlete subject to anti-doping regulations, you should also be aware that PRP injections into muscles are currently prohibited under the World Anti-Doping Agency's (WADA)'s rules.

Your sports doctor would be able to advise you on what to do to obtain an exemption for using PRP in genuine cases of muscle injury.

THE PRP TREATMENT PROCEDURE

The entire PRP treatment can be done as an outpatient, taking approximately 30 to 45 minutes to complete.

Step 1: A small amount of blood, usually about 8 ml, is drawn from the patient. This is usually taken from an elbow vein, similar to blood-taking for any other test. However, extra care is taken to clean and sterilize the skin to prevent contamination from germs.

Step 2: The blood is immediately transferred into a special tube, and spun at high speed in a centrifuge for several minutes. It then undergoes further processing to isolate the PRP. This is done within the clinic and takes about 10-15 minutes in all.

Step 3: The PRP is re-injected back into the site of injury. Where needed, this will be done under ultrasound guidance in order to help maximize the accuracy of the injection. Local anaesthetic may be applied prior to the PRP injection.

Recovery: The process is relatively quick and painless.

Although patients are usually able to walk and perform most normal daily activities after the injection, it is advisable to rest the injected area for a few days, and to apply ice regularly 4-6 hourly for the first 2 days following the injection.

Risks & Side effects:

As only the patient's own blood is used, there is no danger of rejection or acquiring diseases such as AIDS or hepatitis.

A small infection risk is present, as with any injection but is minimized by the use of proper sterile precautions. Soreness may result after PRP injection, depending on the site of injection.